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U.S. National Phase of

International Application No.: PCT/GB00/02692

International Filing Date: 13 July 2000

Priority Date Claimed: GB 9916432.9, filed 13 July 1999

Applicants: Adam Joshua Wynne

Title: Identification of Computers

Attorney's Docket No.: 2277.1005-000

DATE: 11 January 2002EXPRESS MAIL NO. EV 005369217US

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Dated 25 July 2000

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GB9916432.9

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INFINIA IP LTD.,
32 Athol Street,
Douglas, Isle of Man

Incorporated in the Isle of Man

[ADP No. 07943962001]

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Patent Act 1977
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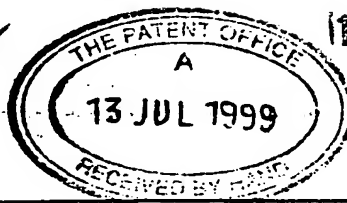
The
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14 JUL 99 E461243 1 072847
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1/77

Request for grant of a patent

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13 JUL 1999

The Patent Office

Cardiff Road
Newport
Gwent NP9 1RH

1. Your reference

HL72894/000/JRAMC

2. Patent application number

(The Patent Office will fill in this part)

9916432.9

3. Full name, address and postcode of the or of each applicant (*underline all surnames*)

MICROGAMING SYSTEMS ANSTALT
10 Pflugstrasse
Vaduz
LIECHTENSTEIN

06.07.00.

Patents ADP number (*if you know it*)

If the applicant is a corporate body, give the country/state of its incorporation

LIECHTENSTEIN

7649465001

4. Title of the invention

IDENTIFICATION OF COMPUTERS

5. Full name of your agent (*if you have one*)

Haseltine Lake & Co.

"Address for service" in the United Kingdom to which all correspondence should be sent (*including the postcode*)

Imperial House
15-19 Kingsway
London WC2B 6UD

34001

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Date of filing
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Number of earlier application

Date of filing
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Yes

a) any applicant named in part 3 is not an inventor, or
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Description

8 *ASH*

Claim(s) -

Abstract -

Drawing(s)

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I/We request the grant of a patent on the basis of this application

Signature

Haroldine L. L. L.

Date

13 July 1999

**12. Name and daytime telephone number of
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Mr. J.R.A.M. Cheyne

[0117] 9103200

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IDENTIFICATION OF COMPUTERS

INTRODUCTION

This invention relates to the identification of a computer when logging onto a remote site.

BACKGROUND TO THE INVENTION

Computer users commonly log onto remote sites to perform transactions, which involve payments from the user for goods or services to be delivered by or through the web site. The remote site may for example be a web site that provides software for download by a user logging onto the site, and paying the licence fee by credit card.

One of the difficulties experienced by providers of on-line services is the identification of the user logging on to the site, for the purposes of credit control and for marketing information.

In most cases, information has to be provided by the user before credit will be granted or the purchase can be effected, but the medium of payment lends itself to fraudulent input. A user paying by means of credit or debit card is not physically present when the transaction is concluded, and this enables the user to decline the purchase when the payment is presented to him by the account holder of the card facility. The provision of this user information also adds to the tedium of usage when a customer logs onto a commercial site.

OBJECT OF THE INVENTION

It is an object of this invention to provide a method of and system for identifying a computer connected on-line to a remotely located site, which can at least alleviate the above mentioned difficulties.

SUMMARY OF THE INVENTION

In accordance with this invention there is provided a method of identifying a computer connected on-line to a remotely located site, comprising:

searching the computer hard drive for an identifying element inherent to the computer;

on finding such an element, combining it together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer;

comparing the unique identifier from the remote site to a store of such unique

identifiers available to the remote site; and,

if the unique identifier is present in the store, matching it to data which is available to the remote site and which is associated with that unique identifier;

and,

if the unique identifier is not present in the store, then storing it in the store, and recording against it data associated with that computer.

There is provided for the identifying element that is searched for, to be a predetermined number such as a serial number of the hard drive disk or other such number which is unique to the hardware of the computer.

There is particularly provided for the other identifying information to be information that is associated with the geometry of the hard drive, for example the hard drive geometry, including the number of sectors, platters and cylinders in the drive.

Preferably the combining function is performed on the computer, and the unique identifier is sent to the remote site, from where it is compared to the store.

The invention extends to a method of creating a unique identifier for a computer, comprising finding an identifying element inherent to the computer and combining it together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.

Preferably, the combining function is an encryption process, and is a 'hash' – type encryption.

Still further features of the invention provide for the data relating to that computer, and against which the unique identifier is stored, to include data relating to the credit record of previous transactions effected from that computer, or relating to further data associated with such previous transactions, such as credit card details used during such previous transactions.

This invention includes a system for identifying a computer connected on-line to a remotely located site, comprising:

means for searching the computer hard drive for an identifying element inherent to the computer;

means for combining such an element, when found, together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer;

database means available to the remote site for storing the unique identifiers for computers and for storing data associated with each such unique identifier;

comparator and operator means for matching the unique identifier with one in the database of such unique identifiers, and with data which is available to the remote site and which is associated with a matched unique identifier, and, for storing an unmatched unique identifier in the database and recording against it data associated with that computer.

The invention extends to a system for creating a unique identifier for a computer, comprising means for finding an identifying element inherent to the computer and means for combining it together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.

There is provided for the means to be arranged to establish a predetermined type of number such as the serial number of the hard drive disk of the computer as the identifying element, or to establish such other mark or number which is inherently particular to hardware connected to the computer.

There is particularly provided for the means to be arranged to establish other identifying information in the form of information that is associated with the geometry of the hard drive of the computer, for example the hard drive geometry, including the number of sectors, platters and cylinders in the hard drive.

BRIEF DESCRIPTION OF DRAWINGS.

One embodiment of the invention is described below by way of example only, and with reference to the accompanying drawing, which is a functional block diagram of a system in accordance with the invention.

DETAILED DESCRIPTION OF DRAWINGS.

Referring to the drawing, a remotely located computer (1) can dial up through an internet connection line, indicated figuratively by line (2), to a web site (3). The web site (3) has the usual computer facilities associated with a web site and is connected to a database (4), for storing identifying markers and data associated therewith.

In use, a user logs onto the web site (3) through the internet connection (2) from the computer. The user in this instance will download software, which is required to enable the user to purchase e-cash to perform gambling transactions on an on-line computer based casino. Clearly the e-cash could be used for any transaction on the internet. The actual casino need not of course be at the web site, but the software is downloaded from this web site.

When the software logs on to the web site, it searches for the serial number of the computer's hard disk. The software also establishes the number of

sectors, platters and cylinders of the hard drive geometry. The serial number and the numbers relating to the hard drive geometry are combined in a hash encryption function to produce a unique identifier of that computer. The resultant encrypted output will provide a one in 2^{32} protection against a coincidence of the identifier from different computers.

The software transmits the identifier back to web site (3). This identifier is then compared with other identifiers stored in the database, to see whether it is present. If the identifier is not in the database it will be recorded as a new entry, and will be stored against the history of the transactions performed by any user at the remote computer (1).

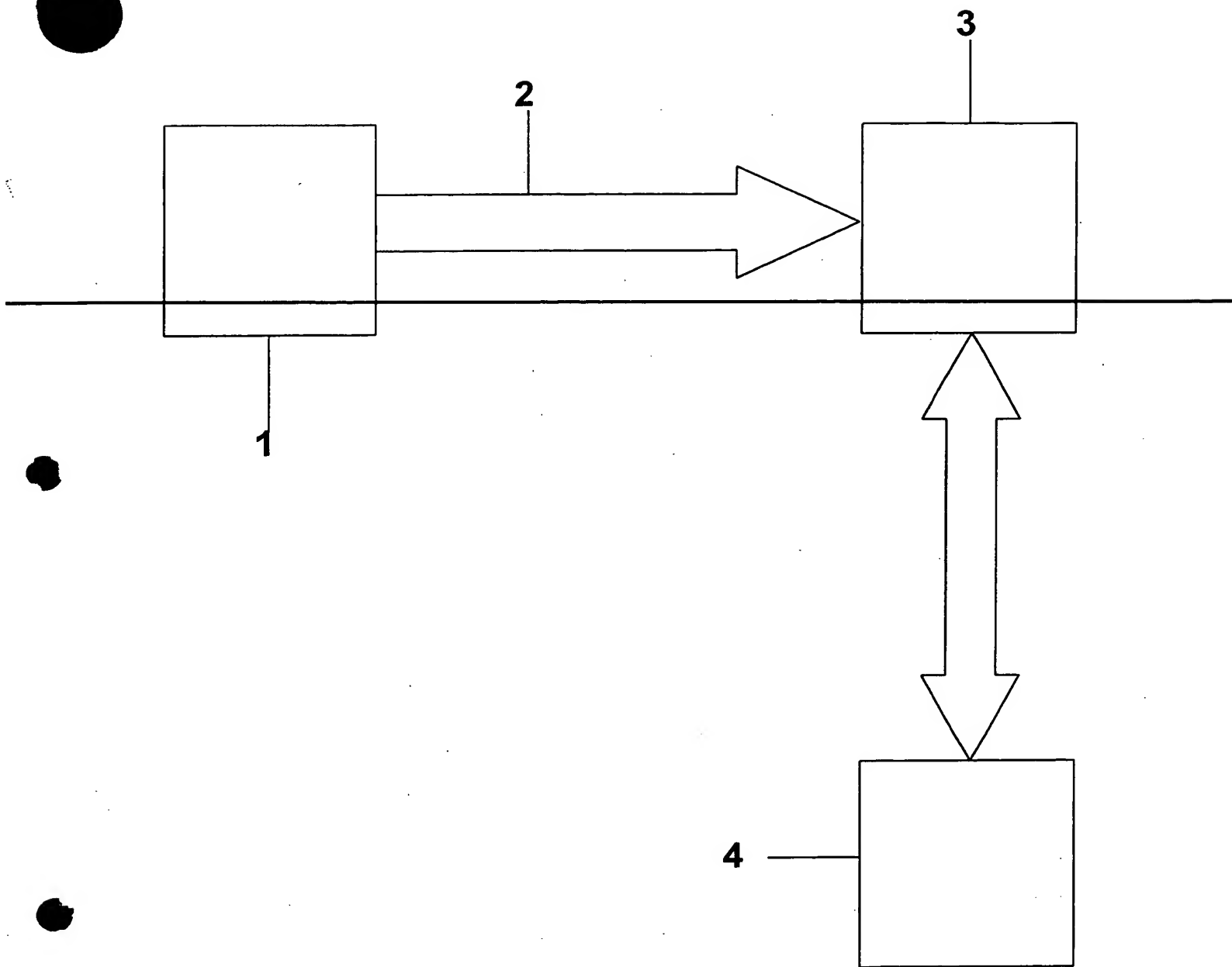
When the remote computer (1) connects again to the remote site, or a user is gambling with the downloaded software, the identifying mark is recreated and is transmitted to the web site for authentication. If the identifying marker is present in the database, the history of previous transactions from this computer can be examined.

If the user at the remote site has defaulted on a payment, or otherwise transgressed licensing or other limitations imposed by the licence terms of the site, then the web site (3) can make a commercial decision on the log-in from the remote computer (1).

The transaction may be declined, or may be accepted with or without conditions.

It is considered that the invention forms a useful method and system for identifying computers that are logging on from remote to effect transactions. It will be appreciated that the method can be used for identifying a computer for any form of on-line interaction or transaction, and is not restricted to use in the environment described with reference to the drawings. Also, the software

used to create the unique identifier need not be downloaded from a web site, but could for example be provided as part of a transaction processing package and be installed by a user on his computer.



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Hoseltine L. Lee - Co.

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